

1 CLAIM LISTING

2 1-16 Canceled

3 17. (New) A clamping or braking device comprising:
4 a housing having a stop area;
5 at least one plate-like element held in the housing and supported with a first end with
6 respect to the stop area of the housing, the plate-like element for transferring clamping or
7 braking forces with a second end to an object;
8 wherein a pressure space is formed between the convex side of the at least one bending
9 area of the at least one plate-like element and the housing and the pressure space can be
10 acted on with excess pressure of a pressure medium which can be supplied to the
11 housing;
12 wherein the plate-like element has at least one bending area which is convex in a starting
13 state, which is pressure-resistant and nevertheless elastically deformable so that the
14 bending area forms an elastic element between the stop area of the housing and the
15 second end of the plate-like element;
16 wherein the at least one plate-like element is so constructed that when the pressure space
17 is acted on with excess pressure, a movement of the second end of the at least one plate-
18 like element takes place in the direction of the object as a result of a reduction of the
19 curvature of the bending area; or an increase in the clamping or braking forces which can
20 be transferred to the object by second end of the plate-like element is brought about;
21 wherein the at least one plate-like element includes either a) radial slits which open
22 inwardly, wherein the second end of the plate-like element is formed by the inside end of
23 the plate-like element; or b) radial slits which open outwardly, wherein the second end of
24 the plate-like element is formed by the outside end of the plate-like element; and
25 one or more sealing elements disposed along the surface of the at least one plate-like
26 element, at least in the area of the radial slits, inside or outside, relative to the pressure
27 space.

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2 18. (New) The device of claim 17 wherein the first end of the at least one plate-like element
3 is connected to the housing.

4 19. (New) The device of claim 17 wherein the first end of the at least one plate-like element
5 is supported against the housing.

6 20. (New) The device of claim 17 wherein the at least one plate-like element is constructed
7 in the shape of a circular ring.

8 21. (New) The device of claim 20 wherein the ring-shaped, plate-like element is constructed
9 convex, in the starting state, over essentially the entire radial cross section, wherein
10 essentially an entire ring-shaped wall of the ring-shaped, plate-like element serves as a
11 bending area.

12 22. (New) The device of claim 21 wherein the one or more sealing elements are constructed
13 in the form of a deformable layer on at least part of the surface of the ring-shaped, plate-
14 like element.

15 23. (New) The device of claim 17 wherein the at least one plate-like element is constructed
16 in such a way as to limit the bending of the at least one bending area in such a way that
17 after discontinuation of pressure space pressurization with excess pressure, as the result
18 of the elastic effect of at least one bending area, the bending area is moved back to the
19 starting state.

20 24. (New) The device of claim 17 wherein several plate-like elements are provided, whose
21 second ends have a predetermined interval, in order to transfer clamping or braking
22 forces to the object over a prespecified expanded area, and wherein for each plate-like
23 element, a separate pressure space or for several or all plate-like elements, a common
24 pressure space is constructed.

1 25. (New) The device of claim 17 wherein at least one pair of plate-like elements is
2 provided, whose first and second ends are directly adjacent or are at a close distance to
3 one another and their bending areas are constructed to bend convex outwardly, relative to
4 the other plate-like element of the pair, and wherein a common pressure space is provided
5 for the pressurization of the bending areas of the two plate-like elements of the pair.

6 26. (New) The device of claim 25 wherein the plate-like elements are constructed in such a
7 manner that they lie close to one another, in an ending state characterized by
8 pressurization at an excess pressure which is greater or equal to a prespecified maximum
9 pressure, with at least one partial surface area of the plate-like elements' respective
10 bending areas facing one another, wherein the ending state is characterized by a suitable
11 formation of the bending areas in such a manner that an automatic return from the ending
12 state to the pressure-less starting state takes place upon removal of the excess pressure.

13 28. (New) A clamping or braking device comprising:
14 a housing having a stop area;
15 at least one plate-like element held in the housing and supported with a first end with
16 respect to the stop area of the housing, the plate-like element for transferring clamping or
17 braking forces with a second end to a pressurizable element, the pressurizable element for
18 transferring the clamping or braking forces to an object;
19 wherein a pressure space is formed between the convex side of the at least one bending
20 area of the at least one plate-like element and the housing and the pressure space can be
21 acted on with excess pressure of a pressure medium which can be supplied to the
22 housing;
23 wherein the plate-like element has at least one bending area which is convex in a starting
24 state, which is constructed pressure-resistant and nevertheless elastically deformable so
25 that the bending area forms an elastic element between the stop area of the housing and
26 the pressurizable element;

1 wherein the at least one plate-like element is so constructed that when the pressure space
2 is acted on with excess pressure provided to attain or increase clamping or braking forces,
3 a movement of the second end of the at least one plate-like element takes place in the
4 direction of the pressurizable element as a result of a reduction of the curvature of the
5 bending area; or an increase in the clamping and/or braking forces, which can be
6 transferred to the object by pressurizable element, is brought about;
7 wherein the at least one plate-like element includes either a) radial slits which open
8 inwardly, wherein the second end of the plate-like element is formed by the inside end of
9 the plate-like element; or b) radial slits which open outwardly, wherein the second end of
10 the plate-like element is formed by the outside end of the plate-like element; and
11 one or more sealing elements disposed along the surface of the at least one plate-like
12 element, at least in the area of the slits, inside or outside, relative to the pressure space.

13 29. (New) The device of claim 28 wherein the pressurizable element is constructed as either
14 a) one piece with the housing and as a part of the housing, or b) a part connected to the
15 housing in a detachable manner, wherein the pressurizable element is constructed
16 deformable in such a way that with a pressurization of the pressure space, a movement of
17 at least one section of the pressurizable element takes place in the direction of the object
18 or the transferrable clamping or braking forces, which were produced by the at least one
19 plate-like element, are transferred to the object.

20 30. (New) The device of claim 28, wherein the first end of the at least one plate-like element
21 is connected to the housing.

22 31. (New) The device of claim 28, wherein the first end of the at least one plate-like element
23 is supported, without a firm connection, against the housing, and the second end of the at
24 least one plate-like element is supported, without a firm connection, against the
25 pressurizable element.

1 32. (New) The device of claim 28 wherein the at least one plate-like element is constructed
2 in the shape of a circular ring.

3 33. (New) The device of claim 32 wherein the ring-shaped, plate-like element is constructed
4 convex, in the starting state, over essentially the entire radial cross section, wherein
5 essentially an entire ring-shaped wall of the ring-shaped, plate-like element serves as a
6 bending area.

7 34. (New) The device of claim 33 wherein the one or more sealing elements are constructed
8 in the form of a deformable layer on at least part of the surface of the ring-shaped, plate-
9 like element.

10 35. (New) The device of claim 28 wherein the at least one plate-like element is constructed
11 in such a way as to limit the bending of the at least one bending area in such a way that
12 after discontinuation of pressure space pressurization with excess pressure, as the result
13 of the elastic effect of at least one bending area, the bending area is moved back to the
14 starting state.

15 36. (New) The device of claim 28 wherein several plate-like elements are provided, whose
16 second ends have a predetermined interval, in order to transfer clamping or braking
17 forces to the object over a prespecified expanded area, and wherein for each plate-like
18 element, a separate pressure space or for several or all plate-like elements, a common
19 pressure space is constructed.

20 37. (New) The device of claim 36 wherein the pressurizable element is constructed rigidly in
21 the entire area in which the several plate-like elements are active.

22 38. (New) The device of claim 28 wherein at least one pair of plate-like elements is
23 provided, whose first and second ends are directly adjacent or are at a close distance to
24 one another and their bending areas are constructed to bend convex outwardly, relative to

1 the other plate-like element of the pair, and wherein a common pressure space is provided
2 for the pressurization of the bending areas of the two plate-like elements of the pair.

3 39. (New) The device of claim 28 wherein the plate-like elements are constructed in such a
4 manner that they lie close to one another, in an ending state characterized by
5 pressurization at an excess pressure which is greater or equal to a prespecified maximum
6 pressure, with at least one partial surface area of the plate-like elements' bending areas
7 facing one another, wherein the ending state is characterized by a suitable formation of
8 the bending areas in such a manner that an automatic return from the ending state to the
9 pressure-less starting state takes place upon removal of the excess pressure.